

II. Remarks

By this paper, withdrawn, non-elected claims 16-18 have been cancelled. Independent claims 19, 29, and 35 have been amended; and new claims 38 and 39 have been added. Specifically, amended claims 19, 29, and 35 are each directed to a method of generating multiple images of a patient using an imaging device, wherein the method includes collecting first image data corresponding to a first parameter set and then stopping the collecting of the first image data for a delay period of *an adaptable value*. The claimed method further includes either collecting, after the delay period, second image data corresponding to a second parameter set (claims 19 and 35); or sequentially indexing the imaging device to each parameter in a plurality of parameter sets, collecting further image data for each parameter set, and stopping the collecting for each further image data for respective delay period of a respective adaptable value. The first adaptable value and the respective adaptable values may be set to a predetermined value, as recited in new claim 38, or each adaptable value may be adjusted to execute one or more different delay periods, as stated in new claim 39.

As stated by Applicants in the specification beginning at page 6, stopping for a delay period with an adaptable value before the collection of subsequent image data offers certain advantages. For example, the delay period can be a predetermined value selected by an operator corresponding to the time it takes for a patient to exhale and inhale and again hold his or her breath for the next image data to be taken for a different orientation, such as a horizontal view versus a previous vertical view, while the patient remains at the same location. Alternatively, the delay period can be set such that image data for a different orientation can be taken immediately after the image data for the previous orientation while the patient holds a single breath and remains at the same location. If image data for the different orientations is taken quickly enough, the patient needs to hold his or her breath only once while image data for multiples views are taken.

In other implementations, the delay period with adaptable values allows Applicants' system to adjust the delay period between each view to a different value, as may be desired in a particular procedure. For example, a controller may be programmed to dynamically adjust the delay periods between taking image data for

different views when the patient is moved to different locations to obtain images of different body portions. Thus, if an automatic table moving device is utilized, the controller can provide a signal to actuate the table to move the patient to various locations, while the controller also adjusts the delay period between each view to optimize the procedure. In this way, the patient can be moved rapidly to various locations to minimize the length of the procedure.

Support for the amendments to claims 19, 29, and 35, and for new claims 38 and 39, is found, for example, at specification page 6, line 21 through page 7, line 8, and at specification page 8, line 32 through page 9, line 27. Accordingly, upon entry of this paper, claims 16-39 remain pending. Reconsideration of this application in view of the above amendments and the following remarks is respectfully requested.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 19, 20, 22-25, 29-31, and 35-37 have been rejected under 35 U.S.C. § 103(a) as being obvious over Applicants' admission of the prior art. Claims 19, 20, 22-25, 29-31, and 35-37 have also been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,657,757 ("Hurd"). Claims 26-28 and 32-34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurd in view of U.S. Patent No. 5,363,844 ("Riederer"). Claims 21 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' own admission or Hurd alone and further in view of U.S. Patent No. 4,875,485 ("Matsutani"). Applicants respectfully traverse.

The Examiner concedes that the prior art does not disclose stopping the collection of image data for a delay period (Paper #21, at page 3). Applicants have now further defined over the prior art in amended independent claims 19, 29, and 35, inasmuch as no reference of record in this application teaches or suggests stopping the collection of image data "*for a delay period of an adaptable value.*" Indeed, the art of record clearly fails to appreciate the advantages of imaging procedures incorporating such an adaptive delay period; and, absent an appreciation of these advantages, there is no suggestion of stopping the collection of image data for a delay period of an adaptable value, as now required by amended claims 19, 29,

and 35. By way of example, Hurd merely loads a pulse sequence parameter, executes a pulse sequence, separately processes and stores the acquired data, and loops back to repeat the steps for a next pulse sequence parameter. And neither Riederer nor Matsutani cure the deficiencies of Hurd.

Conclusion

In view of the above amendments and remarks, Applicants respectfully submit that claims 19-39 are now in condition for allowance.

Fees

Applicants have calculated no additional filing or processing fees to be due in connection with the filing of this paper; however, the Commissioner is hereby authorized to charge any fee deficiency under 37 C.F.R. §§1.16 and 1.17, or to otherwise credit any overpayment, to Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE).

Respectfully submitted,



Hugo A. Delevie (Reg. No. 32,688)
Attorney for Applicants

October 8, 2003

Date

HAD/sko